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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,470	11/26/2003	Patrick J. Richards JR.	END920030120US1	7649

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EXAMINER	
STEELMAN, MARY J	
ART UNIT	**PAPER NUMBER**
2191	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,470	RICHARDS ET AL.	
	Examiner	Art Unit	
	Mary J. Steelman	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/26/03,12/29/04*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/29/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-12 are pending.

Specification

2. The use of the trademarks (as an example JAVA / ANT) has been noted in this application (Specification, Drawings, and Claims). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

3. The disclosure is objected to because it contains an embedded hyperlink (at paragraph [0004]) and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Information Disclosure Statement

4. IDS received 12/29/2004 has been considered.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

See MPEP 7.35.01 Trademark or Trade Name as a Limitation in the Claim

Claims 1, 2, 5, 6, 9, and 10 contain the trademark/trade name ANT/ Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See Ex parte Simpson, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe an optimal scheduling policy (shortest path), accordingly, the identification/description is indefinite. ANT is trademarked by apache.org.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 7,093,004 B2 to Bernardin et al., in view of "ANT ALGORITHM-BASED TASK SCHEDULING IN GRID COMPUTING", by Xu, Zhihong; Hou, Xiangdan; Sun, Jizhou; (May 2003) (hereinafter XU)

Per claim 1:

A method of enabling an ANT XML task file running on a first server to be useable in both a grid and non-grid environment without user modification, comprising the steps of:

-storing parseable files referred to by said ANT XML task file on a second server;

-configuring said ANT XML task file to direct a processor processing said ANT XML task file to search said first server for said parseable files;

-whereby, when said first server has access to a grid environment, said parseable files are scheduled for grid processing.

Bernardin disclosed (col. 5:1-19)-computer server / task farm (grid environment), (col. 9:41-47)-a discriminator acts on all or a subset of Task/Engine pairings, scripting interfaces may be provided (XML), (col. 17:39-63)-LiveCluster with a central Server distributing work to a network of Engines. LiveCluster breaks the Jobs into Tasks. Other computers solve the Tasks and return their results, (col. 18:26-41)-Server functionality is partitioned into Broker and the Dircetor. The Broker is responsible for maintaining a 'job space'. The Director manages Brokers, (col. 18:54)-XML (parseable files), (col. 35:35-60)-admin tools, (col. 69:57-62)-grid

Bernardin failed to specifically disclose ANT. However Xu disclosed (page 1107, last paragraph), "Ant algorithm is a new heuristic algorithm; it is based on the behavior of real ants. Page 1108, left 2nd paragraph, "Ant algorithm has been successfully used to solve many NP problems, such as TSP, assignment problem, job-shop scheduling and graph coloring...So it's obvious that ant algorithm is suitable to be used in Grid computing task scheduling. An at the same time, all the factors that affects the state of resources can be described by one thing, pheromone."

Therefore, it would have been obvious, to use an ant algorithm for task scheduling to find an optimal solution to such a NP problem.

Per claim 2:

-configuring said parseable files to generate individual ANT XML task files, each of which are processable as jobs by a grid processing system, prior to storing said parseable files on said second server.

Bernardin disclosed (col. 17:52-62) jobs broken into tasks, assigned to other computers (second server) for processing. Col. 38:42-65, Broker Discrimination can be used to configure discriminators for Driver properties and Engine properties. It prevents Tasks from a defined group of Drivers from being taken by this Broker. For Engines and Drivers, discriminators prevent login sessions from being established with a Broker..

Per claim 3:

said second server does not have access to a grid environment, said parseable files are processed by said first server.

Bernardin disclosed (col. 8:43-54), (col. 12: 39-50), (col. 28: 4-col. 31:40) -discriminators, prevent a second server from having access to a grid environment.

Per claim 4:

-sending a status indication to said first server after the completion of grid processing of each of said parseable files, said status indication indicating at least the completion of the processing and

any errors occurring during the processing.

Bernardin disclosed (col. 19:19-39 & 50-51)-idle detection. "Meanwhile, the Server tracks the status of Tasks that have been submitted to the Engines, and reschedules tasks as needed to ensure that the Job (collection of Tasks) completes." , (col. 26:55)-log file

Per claim 5:

A system for enabling an ANT XML task file running on a first server to be useable in both a grid and non-grid environment without user modification, comprising:

-means for storing parseable files referred to by said ANT XML task file on a second server;

-means for configuring said ANT XML task file to direct a processor processing said ANT XML task file to search said first server for said parseable files;

-whereby, when said first server has access to a grid environment, said parseable files are scheduled for grid processing.

See rejection of limitations as addressed in claim 1 above.

Therefore, it would have been obvious, to use an ant algorithm for task scheduling to find an optimal solution to such a NP problem.

Per claim 6:

-means for configuring said parseable files to generate individual ANT XML task files, each of which are processable as jobs by a grid processing system, prior to storing said parseable files on said second server.

See rejection of limitations as addressed in claim 2 above.

Per claim 7:

-said second server does not have access to a grid environment, said parseable files are processed by said first server.

Bernardin: See rejection of limitations as addressed in claim 3 above.

Per claim 8:

-means for sending a status indication to said first server after the completion of grid processing of each of said parseable files, said status indication indicating at least the completion of the processing and any errors occurring during the processing.

Bernardin: See rejection of limitations as addressed in claim 4 above.

Per claim 9:

A computer program product for enabling an ANT XML task file running on a first server to be useable in both a grid and non-grid environment without user modification, the computer program product comprising a computer-readble storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:

-computer-readable program code that stores parseable files referred to by said ANT XML task file on a second server;

-computer-readable program code that configures said ANT XML task file to direct a processor processing said ANT XML task file to search said first server for said parseable files;

-whereby, when said first server has access to a grid environment, said parseable files are scheduled for grid processing.

Bernardin: See rejection of limitations as addressed in claim 1 above. See col. 15:33 (computer program product).

Therefore, it would have been obvious, to use an ant algorithm for task scheduling to find an optimal solution to such a NP problem.

Per claim 10:

-computer-readable program code that configures said parseable files to generate individual ANT XML task files, each of which are processable as jobs by a grid processing system, prior to storing said parseable files on said second server.

Bernardin: See rejection of limitations as addressed in claim 2 above.

Per claim 11:

-said second server does not have access to a grid environment, said parseable files are processed by said first server.

Bernardin: See rejection of limitations as addressed in claim 3 above.

Per claim 12:

-computer-readable program code that sends a status indication to said first server after the completion of grid processing of each of said parseable files, said status indication indicating at least the completion of the processing and any errors occurring during the processing.

Bernardin: See rejection of limitations as addressed in claim 4 above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached at (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned: 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman

01/02/2007

Primary Examiner